

December 13, 1952

Dr. A. Felix
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Colindale Avenue
London NW 9, England

Dear Dr. Felix:

I am writing to ask whether you know of the existence of any phages which may have a wide host range over many *Salmonella* groups. Such a phage would be very useful for the extension of our transduction studies. The isolates that I have examined so far have proved to be "rough-specific", i.e., with preferential action on rough variants, and are evidently unsuitable for my needs, judging from preliminary tests. To date, our studies have been confined to groups B and D of *Salmonella*, reflecting the host range of our best suited phage (PLT-22: carried by Lilleengen's *S. typhimurium* type 22).

Thank you for the numerous reprints that have been received. I shall be pleased to continue this exchange.

May I make a brief comment on the recent note by Anderson and yourself on Vi-adaptation. (I have had an intuitive feeling that this story would turn out this way, and should have written to you some long time ago for your comment). I wonder if there is not some relationship between Novick and Szilard's study on "phenotypic blending" of T2 and T4 phages grown in mixedly infected *E. coli* cells, and the interaction of phages in *S. typhi*. Their work appeared in *Science*, Jan. 12, '51. It has been confirmed briefly by Hershey (*Carnegie Institution Yearbook* p. 197, for 1950-51). In fact, one might speculate whether ~~the~~ some of Wiggles & Bertani's results might not also result from an interaction with a cryptic phage.

I had a letter recently from a Professor Cr    (at Angers) citing his experiment of a conversion of *S. typhi* from one Vi type to another by treatment with killed cells of *S. paratyphi* B Ranson. The only trouble is that his starting strain, which he assigned a Vi type, was also called H901! I have suggested that he communicate with you on this spectacular result.

Yours sincerely,

Joshua Lederberg

P.S. You may be interested in some of our recent serotypic transductions, summarized in the enclosure. Dr. Joan Taylor should be getting most of these soon via Bruce Stocker, and should be freely available.